

## ABSTRACT

**INTRODUCTION :** The word abortion derives from the latin word aboriri-to miscarry. Abortion is defined by WHO, National Centre for Health Statistics, Centre for Disease Control and Prevention as the spontaneous or induced termination pregnancy before the period of viability i.e. before 20 weeks or fetus born weighing < 500gm. Spontaneous abortion which includes threatened, inevitable, incomplete, complete and missed abortions. Recurrent abortion it is meant to identify women with repetitive spontaneous abortions. Induced abortions – describe surgical and medical termination of live fetus that has not reached viability.

**AIM AND OBJECTIVES** **Primary** To study and compare the rate of infection in 1<sup>st</sup> trimester medical abortion using buccal misoprostol and vaginal misoprostol. **Secondary** To study and compare the outcome with C-Reactive Protein and other biochemical and microbiological markers like WBC, ESR, Vaginal Swab for early diagnosis and treatment.

**MATERIALS AND METHODS :** **Source of data** First trimester medical abortion cases, in Department of Obstetrics and Gynaecology, attached to Madurai Medical College, Madurai. **Methods of collection of data: Study design:** Open label, Comparative, Prospective Study. **Study period:** 6months **Sample design:** Simple Random Sampling **Inclusion Criteria:** Women age 18-35 years First trimester pregnancy upto 49 days of LMP(7wks) Diagnosed an early pregnancy by TVS USG. Tab mifepristone 200mg is administered orally in both groups on day 1 and instructed to return to OPD after 48hrs. Group 'V'- receive vaginal misoprostol i.e. 400ug inserted deep in to vagina. Group 'B' - receive buccal misoprostol i.e. 400ug advised to keep between their gum and cheek on each side, then to swallow after 30 minutes.

**SUMMARY** This study was done to compare the infection rate in first trimester medical abortion using buccal and vaginal misoprostol. The study was conducted in family planning in department of obstetrics and gynaecology at Govt. Rajaji Hospital, attached to Madurai medical college, Madurai. The study group included 50 women pregnancy for I trimester medical abortion. The mean age in the buccal group was 26.92 and in the vaginal group was 28.68. There was no significant difference with respect to age. Among the buccal group 18 had previous FTND and 7 had previous LSCS. Among the vaginal group 20 had previous FTND and 5 had previous LSCS For the buccal group the mean GA was 6.44. Vaginal group GA was 6.4. There was no significant difference with respect to GA (Gestational age) The CRP positive cases are more in the vaginal group (40%) than Buccal group only 8%. There is significant difference between buccal group and vaginal group. p value is 0.020 significant. The mean WBC Count in buccal group was 8312. The mean WBC Count in the vaginal group was 8014. There was no significant difference with respect to the wbc count level. The mean ESR in the Buccal group was 19.4 compared to 19.32 in the vaginal group. In vaginal swab culture in buccal group two Ecoli, one enterococcus species, two lactobacillus, One staphylococcus species was found, in vaginal group two Ecoli, three enterococcus species, one klebsilla pneumonia, four lactobacillus, One staphylococcus species and one streptococcus species was found. No significant results were seen in urine culture and gram staining technique.

The side effects like nausea, vomiting, fever, diarrhea, shivering was higher in the Buccal group but not statistically significant.

**CONCLUSION :** There was no significant difference between the buccal and vaginal group with respect to age, parity, gestational age and previous obstetric history The vaginal group had significant positive C-Reactive protein than buccal group There was no significant increase in WBC counts in buccal and vaginal group. There was no significant difference in ESR in buccal and vaginal group. There was significant microbial species cultured in vaginal swab taken in vaginal group. Side effects like abdominal pain, nausea vomiting, shivering was more in buccal group The buccal group route is convenient to use avoids vaginal application and comfortable to the patients.

Key words : misoprostol, mifepristone, buccal, vaginal